

CLAIMS:

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1. A process for manufacturing a silicoaluminophosphate crystalline molecular sieve, the process comprising the steps of: (a) providing sources of aluminium, of phosphorus and of silicon, wherein the source of silicon is in solution with a water-miscible organic base; (b) forming a synthesis mixture from said sources; and (c) treating the synthesis mixture for a period of time and at a temperature sufficient to form the silicoaluminophosphate crystalline molecular sieve.
 - 10 2. The process of claim 1, wherein the source of silicon is in solution in a water-miscible liquid organic base or an aqueous solution of a solid organic base.
 - 15 3. The process of claim 2 wherein the water-miscible liquid organic base is in an admixture with water.
 4. The process of claim 2 wherein the water-miscible liquid organic base functions as a structure-directing agent.
 - 20 5. The process of claim 4 wherein the structure-directing agent is tetraethylammonium hydroxide (TEAOH).
 6. The process of claim 4 wherein the structure-directing agent is a combination of tetraethylammonium hydroxide and dipropylamine.
 - 25 7. The process of claim 1, wherein at least part of the process is carried out with agitation of the synthesis mixture.
 - 30 8. The process of claim 1 wherein the silicoaluminophosphate crystalline molecular sieve is SAPO-34.

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9. The process of claim 1 wherein the source of silicon comprises an inorganic silicon compound.
10. The process of claim 9 wherein the inorganic silicon compound is a colloidal silica.
11. The process of claim 1 wherein the silicoaluminophosphate crystalline molecular sieve has a mean particle size of at most 400nm.
12. The process of claim 1 wherein the silicoaluminophosphate crystalline molecular sieve is subjected to the step(s) of one or more of the group consisting of: washing, cation exchange and calcining.
13. A molecular sieve produced by the process of claim 1.
14. A process for the conversion of an oxygenate to olefins in a reactor, the process comprising the steps of: (a) contacting the oxygenate under catalytic conversion conditions with the silicoaluminophosphate crystalline molecular sieve of claim 1; and (b) withdrawing the olefins from the reactor.
15. A process for manufacturing a SAPO-34, the process comprising the steps of: (a) providing a source of aluminium and a source of phosphorus, (b) combining a source of silicon with a water-miscible liquid organic base or an aqueous solution of a solid organic base in an amount sufficient to form a SAPO-34 having a mean particle size of at most 400nm; (c) forming a synthesis mixture from the combination of said sources in steps (a) and (b); and (d) subjecting the synthesis mixture to hydrothermal treatment.
16. A crystalline silicoaluminophosphate molecular sieve having a mean particle size of at most 400 nm.

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